

ANT/SHE/03

WS

SUCRATON

0042

ENDERBY

LAND

1977

①

2401-3000

3901-4000

5901-7400

INDEX

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Subject

ME Marsland

4/1/73

McLeod N. K. R. 40983

- ① NE side - base of dike near 1' end
Veins dipping, fairly massive brown-blackish
chromite grains cut by small fault with
slidescinder. Dip 110° (~~to~~ 20° angle)
Some light, pink granitic layers
interbedded, but quite subordinate to car.
3401 Massive chromite grains

In large embayment on NE side -

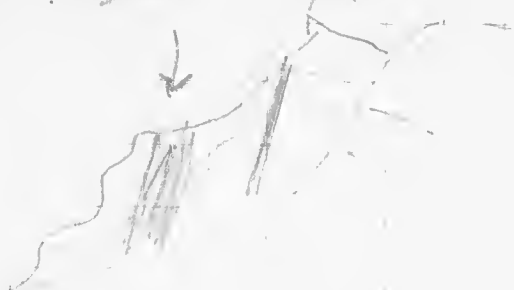
- ② mostly massive chromite grains with
subordinate light colored layers. Dip
 $090/-20^\circ$, and fairly regular. Basic
dyke - vertical, trend 080° . 2 more dikes
to W, similar trend.

Some coarse grained segregations in grains
contain bluish or blackish quartz and pink
feldspar otherwise the grains is extremely
massive (cf Mt. Selwood). Some ~~are~~ ^{coarse (0.5cm)} black spots

- ②A 3402 Dolomite dike.
3403-5 Oriented sample of dolomite (PW)
②B 3406, 7 White lens grains.
3408 Massive gray chromite grains
The light beds here contain some **N**

? mylonite

Dyke



garnet, but only locally. Most are leucocratic, with black quartz and pink feldspar. Some look rather altered (garnet \rightarrow kinkite?)

③ Summit of ridge at E point - massive
chamochitic gneiss Dip $290/10^{\circ}$

Dips to W, variable direction, but mostly
shallow (open antiform and synforms $\frac{3}{2}$ -
fold axes and a'ps trend roughly N-S
Dykes (2 granitic?) in cliffs of ~~near~~ west
spur on N side

3409 massive chamochitic gneiss

④ Ridge (saddle) further to W (above
embayment of 2nd landing spot)
Layered gneiss - chamochitic (brown),
light, leucocratic gneiss with rare
garnet (quite dark grey in fresh surface)
Dip 10° to NE. On cliffs on S side
are dykes, with an asymmetric fold with
a mylonite zone (? could be dyke, but
unlikely) along steep limb.

Some of the lens garnet gneiss is **W**

quite well foliated. Some Cu
staining noted

3410-12 grey leucogneiss with
granit

3413 mafic pyroxene gneiss
(some coarse grained pyroxene
segregations) — slightly discordant

3414 grey gneiss with rounded, very
dark grains of quartz(?)

Dip 040/10

- ⑤ Spur on E side of large embayment
massive chloritic gneiss cut by
fresh dolerite dyke (trend ~ 020)
3415 dolerite

- ⑥ Near W end of mt. — embayment on SW
side — W side near end of spur.
Evenly dipping, well banded gneiss dips
at $110^{\circ}/10^{\circ}$. Some leucocr. & dark
gneiss, with dark gyl and some
samariferous layers, some evidence of
relict gneiss. — fine chlorite aggregates

and local deformation.

341's Grey garnet gneiss, probably
more calcareous (alteration of quartz
etc) - quite strongly foliated.

5/1/77 Mc Riser - Jones [MKR/L Run 15 0710]

2nd spur from E on N side - saddle area

- ① Dip 120/15 but rather variable. Mostly
leucocratic garnet gneiss with kluverite gtz
or gray gtz segregation. Some black
pyroxene & biotite layers. Pods (1-10s of cms)
of pyroxene or garnet are present - gtz may
be darker blue adjacent to these.
Rocks look ~~to~~ quite deformed, & poorly
foliated. Isolated dykes trend 220° and clear
as mylonitic zones cut contacts.

Next spur to W, dip is gentle to S - mod
strongly layered. Summit area dip 30° to 5-
strongly layered; ridge to NW of summit
also strongly layered, with tight folds (at
N to foliation), cut by large dyke, dip
S

W. eastern spur - layered gneiss

underlies massive brown chloritoid gneiss

3417 Leucocratic sand gneiss

3418 Leucocratic sand gneiss

3419 mafic (? pyroxene) lenses in
garnet gneiss

3420 ? Biotite dyke

3421 ? Fine grained, altered dyke
margin

3422 deformed mafic rock (appears to
be slightly discordant)

(2) Middle of S side - (see also on E side of)

Embayment

Banded gneiss, dip $S_{40}^{(120)} \sim 20^\circ - 30^\circ$

Much leucocratic garnet gneiss, some
qtz-rich layers with blue qtz. Some massive
quartz-feldspar gneiss. Dykes + cherts +
possible mylonite zones (shears). Also

conformable or subconformable base
Much massive qtz/feld gneiss to S of melt

beds (dip $14^\circ/20$). Lineation $\sim 19^\circ/25$.

Much evidence of retrogression - shears etc
(conformable mostly). mafic gneiss layers

have ~ 50% pyroxene

- 3423 Sandst gress with blue quartz
- 3424 Grey leucogressis
- 3425 mafic pyroxene gressis
- (2A) 3426 Altered qtz/feld gress (sandst → chlorite?)
- 3427 ' Altered mafic gressis

(3) Near W end (S side)

massive qtz feld gress with ~~no~~ minor mafic pyroxene rich layers Dk 20 to 1900

2 mafic dykes (dolente) trend

080, but are rather sheared, parallel to margins, the larger dyke especially (20m)

direction 190/30

- 3428 massive grey qtz/feld gress
- 3429 Sheared dolente (larger dyke)
- 3430 Dolente from thin dyke (1 metre)
- 3431-4 Dolentes for paleomagnetic dating (PW)

Mt Soucek SW corner on ridge Mt R-L Run 16

- ① massive garnet qtz feld gneiss Dip 190° / 40°. Some bluish quartz-rich segregations, some layers contain garnets up to 1cm across.
- 3435 Sandst quartz feldspar gneiss

NE cliff. of mountain - mod well layered gneiss - dip 160/50°

Peacock Ridge

Unnamed NW to E of Mt Soucek

- ② Dip 160/45 ^{quite well} layered gneiss - qtz feld (grey) with pyroxene, garnet, mafic pyroxene gneiss etc. garnet is quite abundant locally, as is pyroxene, esp in mafic layers. Also coarse segregation of pyx/qtz/feld

3436 Segregation of coarse pyroxene / qtz / feld in mafic gneiss

3437 Qtz / feld gneiss (grey) with abundant mafic (rock is slightly deformed)

3438 mafic pyroxene gneiss
Retrogression is common, particularly along discontinuous shear

③ Ciraham Peak ————— Summit

Rather narrow bedded gneisses, dip
160°/30. ~~Some gray gneisses~~
± some and pyroxene; relatively
abundant biotite grains.

3439 gray gtz/feld gneiss — looks
rather altered (retrogressed)

3440-5 Tolente dykes from
Scarers Ridge (P.W.)

2/1/77 Pyx mts

Mc Giddens + NCK to SW (350/SS on SE)

Mod layered gneiss; fairly even dip ~320°/50/
Some light brown, quartz-feld layers;
Some mafic layers (mc pyroxenized mafic) Tight folds

McNaughton Ridge, similar (N ridge) — dip

much the same, quite well layered gneiss; On

↗ main ridge dips variable — some major
folds, tight to nodular folds

Some irregular granite(?) veins (may

be locally in contact. 1/3 from N side **6**
most light? granite gneiss with more folded darker layers.

Cont

NW end - dip to N 45°

SE end dip to SE

franklin gneiss. lower could be field
more.

10x6 NE to SW - dip of layered gneiss

313 / 70

Mr Douglas.

All fairly massive red greis, with several mafic dykes (~ NS trend)

Nth Wg Mt Robinson

Nye Mts R 8 1184

- ① ~~Star~~ near Summit (towards E end).
Strongly ^{banded} acid gty / feld greis with
some ~~can~~ kaol layer.

More leucocratic types are quite
fissile (aligned biotite X's). Tight
interfolial folds are common and larger,
wider folds seen in cliffs.

Large mafic or ultramafic body - lots of
veins across

3446 Biotite greis

3447 Ultramafic rock

Dip 160/80

Coarse grained, pink biotite pegmatite
trend 150 (~5-10 metres in largest case)

The large pegmatite is strongly deformed
by a shear zone which dips 060/45

The pegmatite is strongly deformed and
finely recrystallized, with large

folded areas up to 10 cm across

Smaller white kushite pegmatite trend
180°, dip E at ~50-60°. Typical
width of these is ~30 cm.

In the greisies - kushite is conspicuous,
+ garnet in ~~the~~ some layers.

? Hornblende in mafic layers.

Gneisses in general are quite
similar to Malodezhnaya. ~~The~~ Grey
quartz pods, veins and segregations
noted (including in core of large
pegmatite). Also coarse, perovskite
segregation. ^{vein} No dikes seen.

but impression is mafic gneiss
may be more common than elsewhere
in central Erdelyis land.

Gravely terraced on ridge immediately N
of Mt Douglas - about highest point
(flat area)

SE end Mt Boshel's - dikes or mafic bodies

Mt Jordan - mafic dykes or dikes.

Mt Aleksheyer - dip toward Mt King

Red gneiss at base mafic dykes

2 dikes on ridge Mt to E

==



Mr. Renouard - photo

S end of Mt Giddings, dip to NE

8/1/77

Mt Renouard SE side - strongly
laminated gneiss with some tight folds.

[Mt Giddings Run 6 2100]

Sapphirine Ntk (E end of ridge)

Bar No 985

510/63

11.30 am MBT

890.4 decP

890.31

-4°C

890.5 incP

890.40

(uncorrected - subtract
2.02)

[890.33]

① 3448, 9 Sapphirine rich rocks

Ntk 2 mls to ENE

12.50 pm

-2°C

510/63

985 = no.

893.82

893.86

893.88

893.89

(uncorrected)

② Pk 110/-25° (has variable dip)

Similar to sapphirine rock

Qtz feld mass with garnet and
hypersthene. Some mafic or ultramafic
rock (epoxy + plagioclase? cross) - relatively
light in colour. Grains are generally
qtz/feld with bluish quartz-rich
layers common. Thin sapphirine
rich layers with garnet and ~~white~~
feldspar are quite common in qtz/feld/
garnet rocks. The layers locally
have layers of garnet-rich ~~sapphirine~~
selvages. The rocks show evidence
of mobilization - i.e. layers are
discontinuous and pinch out.

Qtz/feld layers are often discordant
to these (and to some qtz layers).
Some felds are common. Much evidence

of retrogression in shear zone.
Some thin 5-20 cm thick qtz
feldspar porphyries.

This mylonite cross cut layering

3450-2 layered sa - rich
rock with feldspar (? my orthoclase)

3453-5 ? sa rock

N.B. { 3454-7 layered gneiss with ? sapphire
3455-6 mafic gneiss
3458 ? Ultramafic (or mafic) rock

③ NEK 2 mls ENE - Summit of E peak

Baro m. 5/0 other baro 4/5

864.42

864.49

-2°C 2.50 pm

Dip 31°/6: -70

Well layered gneiss -
Some very massive, leucocratic (1-1/2
m) and almost devoid of foliation.
Dip is very like in main rock
Some 1 ^{cm} quartzite layers (from a few cm up)
Some layers of massive gneiss (rare)
Gneiss have almost a granitic
texture with fine grained, zoned, phyllo-
sine (irregular dist. of fine)

Coarse - gneiss areas

Some layers are garnet rich (up to 12% - associated with black quartz rich zones) - and some contain sillimanite. A few thin layers have minor ? Sapphirine. A few thin layers are also pyroxene and pyroxene rich. ~~Text~~

- 3459 garnet leucogneiss
- 3460 garnet sillimanite gneiss
- 3461 garnet sapphirine gneiss
- 3462 mafic pyroxene gneiss

Mt. Sones - E cliffs near N end -

melt lake (1) [McLeod Run 5 2090]

0°C 4.20 p.m.

Baro 985 510

914.83 914.69

914.82 914.71

(uncorrected)

[3463 Charnockite from NE melt lake (4)
 (base of cliffs) - massive red gneiss
 but a few lighter layers. Uncorr Mt S] 15

Dip $130^{\circ}/80$

Well banded gneisses - 80% qtz feld
predominate - white feld, bluish grey
quartz + red garnet - some individual bands
are quite massive - variable degree of
deformation - some qtz are streaked - not
lenticles. Rocks look, on the whole,
quite deformed - pyroxene pods (~30cm)
with pegmatitic segregations in
pressure shadow regions. Also
cross cutting qtz-feld^{garnet} pegmatites grade
into carbonates. Some very garnet
rich (50%) layers and mafic (? pyroxene)
granulites, garnet/blue quartz rocks etc.

3464 Tenucratic garnet gneiss

3465 Garnet ? pyroxene gneiss

3466 Garnets (? sillimanite/?? sapphirine) gneiss

3467 ? pyroxene granulite

② Mt Jones - W side, half way up
cliffs.

0°C

5.25 pm

Baro no 985

510

914.59

914.53

914.69

914.57

(uncorrected)

Leucosatin garnet greiss - dy/feld / rare garnet
similar to East locality, + more mafic
zones - some thin - some larger - much
silicified + garnet + possible calcification
(see ground logs with 1/2 section).
Exp 252/43 just E of landing -
but major, fairly thick fold (at least
plunging)

3468 - fill ? La garnet hyp greiss

3469 - fill garnet greiss

9/1/77

Mt Robinson

11/2 Mts R B, 1184

② N.W. side of W of — NE corner of
cliffs Trend 220° — dip vertical

③ Mt Robinson — base of W cliffs

Abundant strongly layered sand-
greisises — dip 130° / 80

Sand is abundant in acid- and
base rocks — ga amphibolite;
ga qtz feld greis; ga qtz greis (minor);
also some massive ? chloritite —

Looking greis. mafic greis contains
amphibole + krotite + garnet.

Roofs of strata folded with steeply
dipping axes, and associated lineation
and folding — the more strongly
folded rocks are also strongly
deformed — streaked out matrix —
small porphyroclasts etc

Low minor calcareous lenses —

low one case with xenoliths

of greis in calc. rich matrix
 with reaction zone (specimens)
 X-cutting pegmatite (alt) with
 kyanite and ? hornblende cores
 at margins (spec) - apparently
 later than the folding. Garnet rich green
 bands as kyanite and endorsed in more basic
 matrix garnet greis

3470, 1 Garnet hornblende greis

3472 Amphibolite

3473-4 Acid garnet greis

3475 massive "charnockitic" greis

3476 H. Acid greis

3477 mafic greis

3478 Marble with ~~greis~~ inclusions (2 spec)

of quartzite
 3479 ? Hornblende from pegmatite margin

④ Flat area near S end

Ht / biotite greis - some well foliated
 greis (esp. kyanite gn) - no garnet or
 much amphibole and mafic greis.

Red, massive greis is abundant in
 the area - some has a charnockitic

texture with orthoclase pyroxene

mafic pyroxenite and/or hornblende
rocks occur. Minor calcite rich pods
with plagioclase and ? amphibole

Some pyroxenites trend 220° .

Dip $180/80$. Lineation steeply dipping
minor interfolial fold common.

Generally like molodetzkiye.

Bluish grey pods, calcite rich pods occur

3480 massive hornblende gneiss

3481 Massive and bit. ? pyroxene gneiss

3482 ? pyroxenite pod

3483 Hornblende hornblende gneiss (rather fine)

3484 mafic gneiss (? pyroxene)

3485 Pyroxenite pod (? diopside)

Alderice Peak

Nye Mts R. 9, 0144

①

S side

Red and green + mafic hornblende gneiss
dip $150/70$ lineation dip $210/45$.

Hornblende and biotite gneiss similar
to East localities

Some pyroxenite pods

Hr/biotite gneiss and bit gneiss
interlayered

coarser grained g/b / fdd green (massive & uncracked) + some pegmatite segregations
X cutting pegmatites (20 cm wide) are
white, diffuse margins, contain
biotite

Red & and green in spots

Chromschist appearance

3486 Massive acid gneiss
(chromschist appearance)

3487 Heterolithic gneiss

3488 ? gneiss

Krasnaya Nek - low area near road

① Thin beds

NYe MKS R 9 10137

Red and green + black in places:
white gneiss - interfolded, mobilized
acid gneiss - many minor to mesoscopic
folds + folded pegmatite and
later discordant white granite
General strike E-W, near vertical
dip very contorted. Folds in layers
gneiss to be observed in granitic
gneiss

3489 layered acid gneiss

3490 mafic gneiss.

3491 massive granitic gneiss

(i.e. poorly foliated, with garnet)

Krasin Ntk

Nye MTS, R11, 1165

Similar to South Locality

dip 160/80

Red and/or granitic gneiss

with mafic gneiss - granitic gneiss

looks very massive, more mafic gneiss
common.

Northernmost Ntk

Vertical red, rather massive gneiss

with some mafic layers - similar to

~~the~~ main Ntk strike - NE-SW.

Papuan Ntk

Nye MTS R12, 0496

① Similar to Krasin

Steep to vertical granitic gneiss

with garnet - some more mafic and

mafic (SS) layers. Interbedded with

massive acid gneiss (latter

predominates

The darker layers are usually
partial and rather banded (sp. -
leaves) - many die out laterally

The massive granitic gneiss is very
likely initiated in outcrop as probably
intrusive (unaltered gneiss)

3492 Garnet granitic gneiss

3493 Granitic gneiss

~~The~~

^{the} Pelagic layers contain biotite and/or
hornblende, gneiss like granitic gneiss

By sec 35

rather to the vertical Trend 070

Greenhall Mt

Vertical trend 060

S part. - massive red gneiss + dark
bed N end - layered gneiss (in-
creases light bed.

NEK 4 mls N of Greenhall Nye MS R11, 1152

① N end rather massive green, rock is
1000 layered green - 20 biotite green
amphibolite etc + white marble
layers. pyroxenite (epoxy + opyx?)
lenses, pods also.

Matrix has folded inclusions
of amphibolite > looks like mobilized
dip 160/70°

Some - ultramylonite (not
sure about?)

Mineral fold are common

up to isoclinal

direction some green

lenses: ultramylonite pods

3494 Garnet biotite green

3495 " " "

3496 Amphibolite

3497 Pyroxide / opyx

Some garnet-bearing quartzite

2nd from N of Ward Mts Nye MWR 9, DISI

On melt lake

N end of NEK reddish green melt garnet
etc, pegmatite

3498 granitic gneiss

3499 " "

Melt lake area massive granitic
gneiss (with knots? hypersthene) -
characteristic appearance

10/1/77

Main peak of Dismal Mts - near Summit

3500 massive granitic
(characteristic) gneiss

Red colour possibly due to
stratification of mafics

A few mafic pods: gray green
- lenses

Most of the rocks contain

mafic xenoliths: for pyroxene,
but generally, fairly leucocratic

Mt Saw

- Garnet biotite gneiss - well
banded, light green with biotite
(pyroxene) X cutting fragments
with garnet, biotite + coronas
around gneiss (isograd pegmatites?)
- 3901 mafic gneiss
3902 Acid gneiss with garnet, biotite
etc (dark, characteristic appearance)
3903 white garnet / biotite gneiss

Rocks look similar to ~~those~~ those
with ~~W. side~~ ^{reddish} ~~W. side~~ ^{but may be higher grade}
St. Lawrence ^{gneiss} ~~St. Lawrence~~
St. Lawrence ^{gneiss}, ^{metre}

Doggers NEK

- mainly reddish and pyroxene gneiss -
characteristic appearance in H/S.
- H/S thin thin pyroxene fragments (mafic)
layers. Some diffuse fine pegmatites
subconcordant
- 3904 characteristic acid gneiss

Unnamed NTK ~40 miles W of Krukey
Peaks

Ratho hasam red gneiss - mod.
abundant mafic layers - biotite rich
Dark gran/leuc gneiss, possible
core pyroxene mafic layers (~~not~~
~~more~~ or biotite?)

Pink cross-cutting pegmatites
with abundant biotite common.
Finer-grained, int. layers have
abundant biotite & ? pyroxene.
Gneiss are mafic & folded
(~~not~~ or ? mafic & folded & oriented)

up to 55° but very variable
3905 Leucocratic, layered
biotite (? pyroxene) gneiss -
quartz well foliated with
ch. inclusions

3906 Coarser grained gneiss - biotite
gneiss

3907 Mafic layered - biotite & ? pyroxene

S Peak of Gromor Ntker Simpson Pt, The RA

2020

① ^{unwed} Red, green and quite abundant
 mafic rocks. The latter make
 amphibole, with the acid feldspar
~~appears to have~~ a characteristic
 appearance. Abundant white to pink
 kaolinite fragments cut the ~~mafic~~
 gneisses and the country rock
 are green with the reddish brown
 adjacent to the pegmatites. A
 possible mafic dyke cuts the
 main rock and is cut by
 pegmatites.

The mafic gneiss is locally
abundant

2708 mafic gneiss and green
(amphibole?)

2709 mafic gneiss (amphibole?)
pegmatite(?)

Litke Ntk

McLeod Ntk P. 6, 2131

Very massive, 1200. by foliated granite
green with some discontinuous lenses
and bands of more mafic gneiss

3910 Granite gneiss

The gneiss contains garnet and
pyroxene

Mt Pascoe

Red, massive, homogeneous,
partly foliated gneiss —

3911 Acid pyroxene gneiss

Watson Ridge

Red massive weakly banded
gneiss with pyroxene

3912 Acid gneiss

Dip NW. 30°

12/1/73

Simpson Pk, R 13, 0414

Tonagh Island

no visible dykes w.
E end on small island

①

Well layered brown opx & qtz feld
gneiss ^{to mag} white leucocratic layered gneiss,
 mafic pyroxene gneiss, garnet pyrox-
ene gneiss (mass garnet rock) etc.

Cut by dolerite dykes

Some shear zones at dyke contact
and dyke is locally foliated

Dip 250/15-20°

much sandy material, ventifacts,
in situ chert nodules & boulders etc.

3913 leucocratic garnet gneiss

3914 brown leucocratic gneiss (opx)

3915 mafic pyx gneiss

3916 mafic pyroxene gneiss

3917 dolerite dyke

W of Tod - mafic more massive red gneiss,
but more layered gneiss towards NW end,

cut by mafic (gneiss) - > dykes

NW end mt ~~is~~ Trail - well layered gneiss

cut by mafic dykes with asymmetric

light folds - steeply plunging.

Unit I (SW of Cook Is) - well layered gneiss with asymmetric fold - steep limb and relatively flat limb (E end of island)

13/1/77 Tonagh Island - NW end

(2)

Well layered metasedimentary gneisses - a wide variety of types -

Qz - Qtz - feldspar gneiss + garnet - Qtz - feld gneiss with interlayered magnetite - rich rocks (up to 20%), pyroxenite (some with garnet?), mafic pyroxene gneiss (locally with garnet?) etc

~~Discordant~~ Discordant dolerite, ~10-20 cm across cuts the gneiss and a probably st. discordant mafic gneiss. A large dyke at the NW tip is probably metamorphosed with local development of garnet in ~~the~~ planar zones (? shears). Small ~~scale~~ dykes deform the ~~the~~ thin dolerite

garnet → quite abundant

Dip $140^{\circ}/75$

- 3918 Garnet quartzite
3919 Magnetite-quartz rock
3920 Pyroxenite
3921 mafic pyroxene gneiss
3922 mafic garnet pyroxene gneiss
3923 Pyroxene gneiss
3924 Discordant, thin dolerite dyke
3925 mafic ~~dyke~~ gneiss (possibly m/n dyke)
cut by 3924
3926 massive dolerite dyke
3927 Same dyke w/ development
of garnet along shear zones
3928 ? Dolerite - same dyke as
above near contact
3929 Garnet pyroxenite (?)
3930 Garnet-net gneiss
3931 Pyroxenite
3932 Garnet gneiss

Bandage structures quite common

① MT Pardoe

White biotite + garnet pyroxenite cut
by ^{old gneiss} layered L garnet gneiss feld gneiss and
garnet pyroxenite feld gneiss
Near the pyroxenite the garnet (& pyrox
pyrox) are replaced by biotite
Less range of rocks than last
locality, but still quite well
banded

3933 Lencocaine garnet gneiss

3934 ditto - retrogressed (garnet → biotite)

3935 massive garnet pyroxenite
gneiss (dark grey)

3936 Ditto - retrogressed (pyrox → biotite)

Dip 210/15

Plumbline level 180°

② NE corner of Mt Pardoe

Layered massive garnet pyroxenite
gneiss (dark grey) - also includes layered
garnet rich gneiss; Lencocaine garnet
quartz feld gneiss; much magnetite - rich
rich (up to 25% magnetite)

the well developed dyke ...
which seems to be rather good.

Pegmatite (white) - with much biotite
+ garnet, muscovite - retrogression
near contacts (gam \rightarrow biotite)
prob. amphibolization of mafics

Dip 290/30°

Tend of peg = 040

Dyke trend = 110°

3937 Well foliated magnetite rock

(foliation is stronger near
pegmatite - possibly a shear zone)

3938 Kapholite from near pegmatite

3939 massive grey garnet grains

3940 Sat conformable (poss. sl. discordance)
mafic rocks (2m thick)

3941 Dolomite dyke (~ 1m thick)

(*) 3942 muscovite from pegmatite
(possibly for dating)

③ into [unclear] SE [unclear]

Dip 290/70 at granite [unclear]
below Landing site.

Both massive (but conformable and
foliated) granitic gneiss with rare
garnet, / or pyroxene

Laminated mafic pyrox gneiss, ^{massive} leucocratic
white garnet gneiss, laminated pyrox garnet
gneiss etc. Some evidence of
retrogression locally (garnet → biotite)

Dip at Landing site 030/25

For summit (S) ridge - towards
N.W. summit of [unclear] at 25

3943 mafic gneiss, [unclear]

3944 leucocratic garnet gneiss

3945 mafic pyroxene gneiss

Priestley Peak

①

Sept 26/25

Dykes cutting garnet green (mostly leucocratic) with major pyroxene rich layers; much leucocratic part all is well foliated.

Volcanic dykes - 2 trend (1000-0100) look similar - the thin one is 1 inch, the other (1000-0100) is 2 thin (converging)

alkaline dykes trend 030°. They are up to 100 thick (down to 2 cm in thin ones), and contain much mica and ? calcite

? Microcline xenocrysts are surrounded by mica. Some is rather large & irregular. The alkaline ^{dykes} cut the calcite, but relations w/ calcite is uncertain

Near the alkaline dykes there is much retrogression in garnet green (3 cm wide - garnet but etc)

3946 Garnet green

Conts:

SW Park of mt. T. Collier-jobs, etc.
a reddish green (iron, garnet-bearing)
They strike rather vertically but dip
at points about SW.

A few more - less numerous
found in strongly layered series
Steep dips in cliffs

NE cliffs & outcrops of grayish
brown, layered pyroxene gneiss,
marble.

3947 Thick dolerite dyke

3948 Thin dolerite dyke

3949 A-D. Alkaline dyke (rel coarse
grained)

3950 Rel fine grained alkaline dyke

3951 A-C. Layered alkaline dyke

3952, 3954 Dolerite/alkaline dyke contact

3953, 3955 Thin vein of alkaline dyke.

3956 Vein of zirconite in dolerite

Outcrop just E of Prestley Peak

(2)

up 2.30/45

~~Brown~~ Brown 15% 2/3 fold gneiss

Quartz ~~is~~ well defined and large,

but ^{much} less variable composition than

last bed locally 3957A Pyroxene gneiss

Mt Trail NW end - st layered

gneiss tightly folded, axial planes
rel steeply tilted - more massive
radial gneiss on SW side, towards SE
end. Cut by dikes.

Mt Tod - large, tight fold, axial
plane dips ~ 30° to NW (estimate
o.c.)

③ Priestley Peak

Pyroxene gneiss - strongly layered, like
N to W, with interbedded leucocratic
garnet gneiss, garnet-pyroxene gneiss
and mafic pyroxene gneiss. Some
coarse grained black pyroxene
beds up to 30-40m long.

Dip 345 / ~30°

Dolerite dykes, - several trends
including 100°

no alkaline dykes noted

3957B Dolerite dyke

3918 mafic Pyroxene gneiss

Simpson Pt P13, 0425

① Reberham Peak - N side, 1/2 way along
dip near basin dyke.

Dip - subhorizontal

massive, reddish pyroxene
gneiss with rather indistinct
layering cut by massive
fine dolerite dyke

Dip ~ W at ~5°
Trend of dyke ~ 160°

3960 ...
3961 Tolento dyke

① E end — layered green, (Simple. Pk R 14
Dip N at 40° – 50° 0634)

massive reddish layers are
sand greenish, some with slight
bluish quartz; interlayers
with leucocratic garnet gneiss
and more mafic pyroxene
gneiss. In cliffs of enlargement
recumbent folds (also dipping N
at low angles) are visible

3962, 3 massive garnet gneiss

3964 Pyroxene gneiss

Unnamed Ntk 3mb E of Mt Charles

Simple. Pk R 12, 0522

① Sharply layered ^{+ pyroxene} garnet gneiss,
massive garnet gneiss (light grey),
mafic pyroxene gneiss
Stake 072 vertical near
landing site. Large light
folds just to N of landing

... dip to ~ 45°
to N

A few garnet of 3rd field (granulite
surrounding a few cm thick)
are present. Some biotite in vertical
garnet grains (sl. deformed)

3965 Garnet grains

3966 matrix pyroxene grains

② Unnamed NTK 3-4 mls SE of Mt
Charles

Similar rock to last locality and
to rock immediately to the
east

Leucocratic garnet grains,
more layered garnet zones,
matrix pyroxene grains etc.

Dip 180-190 / ~ 60°

Layered rocks on landing site
more massive rocks to the S.

3967 Leucocratic garnet grains

3968 Garnet grains

3969 massive, irregular bed

① mt Charles - near N end

Simpson PK R11, 1111

Well. Layered garnet gneiss / feld gneiss (leucocratic)
with more mafic pyroxene gneiss
and some rather felsic, partly weathered
garnet gneiss with ? sillimanite
Biotite is present in some of
the garnet gneisses, & is fairly abundant
The garnet locally has a granular
texture.

Dip is -02°/50° at Sander,
like, just to the N in
wind some it is north.

Dulante dyke trends 180°.

- 3970 garnet gneiss (+ sillimanite?)
- 3971 garnet gneiss (+ sillimanite biotite?)
- 3972 Pyroxene gneiss
- 3973 garnet gneiss (+ sillimanite)

The pyroxene gneiss are rather
more mafic and finer grained (~1mm)
They are associated with strongly
foliated old feld gneiss with a
"granular" texture.

Mt Bennett - thin spur at NE

①

end

massive red 'characteristic' pyroxene
gness with coarse grained, conformable
pegmatitic segregations containing
(pyx, qtz, feld) - coarsest qtz.

more mafic layers are granoblastic.
Here, even-grained pyroxene
granulites

Dip 060/10

A cliff a thick mafic

layer has to a metamorphosed

dyke - it appears to be
slightly discordant, but this
is uncertain

The main summit area consists
of more strongly layered, light
and dark gneisses, and has
several narrow dykes

3974 Acid pyroxene gneiss

3975 Mafic pyroxene gneiss

3976 mafic pyroxene gneiss

(2)

Dip - 300/45

Layered gneisses - coarse grey

garnet pegmatite gneiss in sub-

conformable segregation, locally

discordant and in discrete veins

White feldspar, grey qtz, rare garnet

Some evidence of deformation

Feldspar augen; and retrogression

replacement of garnet by dark

greenish chlorite or biotite.

Dark grey, finer grained "Charnokitic" more

layered gneiss with some garnet

? pyroxene is intruded by these

pegmatite. Also white garnet

leucogneiss (some retrogression), some

more mafic ? pyroxene green

and pink granite (veins?)

Field relations not seen.

All are cut by dolerite dykes

3977 Dolerite

3975 Granite

3974 garnet leucogneiss from

pegmatite zone

3983 Reddish brown green

③ Grimsley Peaks - 2nd Ntk from

W (near S end)

reddish

Massive; chlorite - very poor
foliation (almost indeterminate, best
dip at point near landing is 33°/70.

Some waxy layers and inclusions
Some bluish or greyish quartz-rich
inclusions and lenses (diffuse, well defined).

A few ^{green} inclusions are light in color (almost
white) ~~and~~ which contrasts with
the dark reddish brown of the

chlorite (grey on fresh surface)

3984, Massive chlorite

with a few feldspar grains - this one

3986 mica-rich float

④ Eastern Ntk (H end)

Similar to Ntk Bennett - layered

(grey, pegmatite, etc.)
 interlayered, cut by dolerite dykes
 mafic pyroxene gneiss is mod. abundant
 - garnets was linked - with pyroxene
 in coarse grained, leucocratic layers
 much retrogression locally - some
 shear = fracture zones, (biotite
 replacing pyroxene etc.) - Amphibolite
 in one locality

39878 mafic pyroxene gneiss

3989 massive charnockitic gneiss

3990 ? Amphibolite (rather scarce)

Mt. Maines - W side

Mt. God/McLeod NE15 R2

- ① Similar to last locality and to 127
 in the ^{migmatite} ~~leucocratic~~ layered & pyroxene
 gneiss with coarse grained, mobilized
 pyroxene & feld rock (pegmatite
 with subvolcanic locally & outcrops)
 Garnet occurs locally.
 much retrogression, especially
 in the ~~leucocratic~~ part (locality
 of layered gneiss in granitic

3994 Altered pyrox of old green (biot → pyrox)
Biotite green (retrograde)

② Northernmost of 2 rthks NE of Mt. Marie

Similar to last locality, but less retrograde
Well layered pyroxene greenish -
rather micritic - pegmatitic layers
with pyroxene; some single layers
(pyroxene + biotite). - somewhat
hardened. On SE side of Nbk -
massive chlorochite green.

2 dolerite dykes trend N15

Top of green 110/80°

Green is fairly light in colour
(unlike massive chlorochite)

3995 Biotite pyroxene green (note)

3996 Pyroxene of old green

3997 Mottled (impure) acid
green mottled

Much diffuse layering, / fault zones, pegmatitic
segregation etc. Pyroxene in pegmatite
best probably some replacement by
biotite

Mt Breckinridge

18/11/77

hard, red, massive characteristic

quartz 1-2 mm to NW -

Similar to N Bennett and 1st stop
at Grousey Peaks

NW 4 miles east of Mt Cordell is
also ^{red} massive characteristic gneiss

Mt Codrington

18/11/77

Mt Cod / Proc I & R 13

2272

③ NW border spur - Base of cliffs on NE
side

Steeply dipping over granite -

strongly folded with v. abundant pegmatites
(qtz fold axes; g of amphibole)

Most of the gneiss is leucocratic,
with ^{hard} abundant biotite (some apparently
replacing pyroxene) - amphibole in

more mafic layers - The gneiss is
partly unfoliated - it becomes virtually
unfoliated, with lots of mafic

layers and is locally intruded. Layered
gneiss bands (some unfoliated) are

~~metre~~ malitized green

Pegmatites are partly conformable
but many are discordant - very
variable trends (most are thin, 1 up to 1 m
or so).

Epidote veins quite abundant,
and locally small shears are present.

A few layers have garnet and
possibly relic pyroxene. Amphibole also present.

3998 mafic kistite green

3999 foliated ^{green} and kistite green

4000 sl. foliated grey kistite green

4301 massive kistite granitic green

4302 massive reddish garnet green

(some contain with kistite or pyroxene,

Mr Cod R 13 / 2272

④ incl Depot 1921

265 750

298-19 89E-12

Worche Ntk

Mt Wd 25/1044

near summit (at 2000)

| | | | | |
|---|------|--------|--------|------------|
| ① | Baro | 750 | 265 | 2000 + 6°C |
| | | 926.64 | 926.61 | |

Both purplest grey Leucoglossa
 with green and ? pyroxene
 Mineral evidence of retrogression
 (zirconite) - some lighter green
 coarse grained - 1/2 (green) and
 1/2 (purple) grains
 Pyroxene probably matrix green
 also present
 Vertical streaks 0.9 to 5.0
 bandy like (diffuse banding)
 At landing site - plates showing
 bands 350 (vertical)
 4303, 4 massive and green

② Mt Bisbee SW end (near ge. field
 camp)

Purple massive green like 3a in
 locality, ... 1/2 field

Up 080/20.

Cut by dolomite dyke (?) (trend 330°)

Most of mt appears to be of massive purplish g₂/g₃ field gneiss

4305 massive and gneiss

4306 white / leucocratic gneiss

4307 Dolomite dyke (?)

③ Up a new peak

massive purplish gneiss (white if
it is similar.

lighter color gneiss garnet leucogneiss
and pink deformed schist (locally
imp. gneiss. elsewhere pink / grey
g₂ gneiss.

Barite is not indicated. Purplish
gneiss is indicated along some veins

Up a 010/10.

Dolomite dyke trend 020

304 White to light

Rudmore Brown Peak Mt Coel R3/0884

Baro 2154 0°C

750 265

930.95 2931.00

① NW area of rubble - just crossed after
ice.

Rocks look similar to those
at Kenose - massive and
green with purplish colour &
marked evidence of retrogression.
Some in one sample, possibly
pyroxene in some, but much
evidence for kaolinite
No rocks in situ.

4311, 2 massive - characteristic
fossils (quartz, chlorite)

mt Oldfield

U.S. Geol. Survey 1014, 9836

①

W end of main peak 222

Dip 230/30°

V. Massive reddish chlorite schists

pyroxene zones - poorly foliated
little banding, lenses and inclusions
of more mafic gneiss (mesocratic) &
pyroxenite.

Interlayers with massive white
quartz (microcrystalline) (also with
xenoliths) and mafic pyroxene
gneiss.

Dolente dyke trend N/S
and steep 050° (particularly
adjacent to ~~dyke~~ dyke
margins.

much of Oldfield consists of
massive pyroxenite gneiss

4313, 4 massive chlorite schist gneiss

4315 some of Oldfield gneiss

4316 mafic pyroxene gneiss

4317 Dolente dyke

int ~~11/11/68~~ Charles

① See entry 4318 as last note (p. 2:00) Probable alkaline dyke - rather steeped.

4318 Metamorphosed dyke.

4319 Metamorphosed dyke - contact with gneiss gneiss

NK 4ms NW of Mt Brockelsby

① (N. of group) Sample R 12 0528
Dip 33°/25

Layered gneiss gty feld gneiss (grey to white) mafic pyroxene gneiss and massive reddish acid pyroxene gneiss. Similar rocks to Kabinan Peak and those SW of int. Charles. Some of the massive red pyroxene gneiss contain gneiss.

4320 massive pyroxene gneiss gneiss

4321 feld gneiss gty feld gneiss

4322 mafic pyroxene gneiss

mt Brockelby

Simpson PK R12, 0527

①

Shale of summit (~20 m below
highest point)

massive reddish charnockitic

pyroxene gneiss with some

coarser grained pink feld / quartz /

minor black pyroxene assemblage

and some thin fine grained

major layers (pyroxene / plagi)

Dip 160/80°

A dolerite dyke at the s

ed of the mountain was not

apparently accessible

Some of the gneiss has a

more friable character, possibly

due to development of inclusions

43234 massive greyish-brown

and pyroxene gneiss

Dip 320/30.

mt Gordon

- ① massive pyroxene & feld gneiss
with ~~some~~ (some up) of
mafic gneiss. Pyroxene is probably
present in these, but some looks
like amphibole. mostly
The acid gneiss is brownish in
colour, but some feldspar grains
are quite a dark brown (cf macon
Charnokite), others are cream.
Qty is grey or bluish
4325 Pyroxene gneiss (acid)
4326 Mafic gneiss

Francis Peaks Simpson Pk R13, 0439

- ① S' peak - base of SE ridge. (SW side)

Massive charnokite gneiss

Little layering apparent, at least for
massive grained quartz-feldspathic

layers. Little mafic gneiss, although

the mafic layers are present.

Some mafic gneiss in some of the
acid gneiss, in addition to pyroxene

Dolomite dykes are present, including
the one that to the S of the
Peaks (reason)

Dips are mainly to the NW
(hard to steep) but at the
landing spot the dip is 020/80
4327,8 Massive reddish chloritoid
pyroxene gneiss.

② Small Ntk on SW of SE Peak.

massive ^{red} chloritoid pyroxene gneiss,
similar to last locality - some garnet
present locally. minor chlorite
& plagioclase gneiss. Tilted and steep
gneiss. Trend 210 vertical
Cut by fresh dolomite dyke
4329 Massive reddish chloritoid gneiss.
(pyroxene + ? garnet).

Barkell Nick

R 1

①

Massive reddish chamoctatic pyroxene
gneiss with some mafic pyroxene
gneiss. Similar to Lake localities
Some more mafic gneiss and
some garnet gneiss locally.

Discordant(?) retrogression zones
are present - gneiss is bleached,
deformed, and mafic replaced
by biotite.

Dip at S end is ~330/70
4330 massive reddish
chamoctatic gneiss

Pythagoras Peak

NE corner mostly reddish, massive
charnockitic gneiss

Summit 200' some massive gneiss
with some lighter interlayered gneiss

mt Dugess - Similar to Pythagoras -
^{microscopic} red massive gneiss, light colored gneiss etc.

mt Miller (SW) Rather massive gneiss
+ interlayered banded gneiss (light colored)
with thin horned dykes NW is similar

mt Bartlett E well layered gneiss,
cf Sapphirine etc. (complexly folded)
W half is similar ~~to the rest~~ with
~~dykes~~, steep dips

mt Codrington R 3, 0907

mt Storee SE spur - saddle area

- ① Mod well layered pyroxene gneiss -
massive reddish charnockitic gneiss,
well banded, more mafic pyroxene
gneiss (grey to dark grey) and
pyrox gneiss with fold gneiss (not the
like leucocratic gneiss gneiss)

in ... (bottle?)
 (but ^{apparently} there's much) a few thin
 epidote veins + blue quartz veins
 Some of the largest pieces ^{elongated}
 have a strong lamination (mineral
 aggregates) and a few look
 relatively deformed - feldspar argen
 (one) - well layered quartz
 grains etc

4331 Reddish, coarse grained granite
 gneiss

4332, 3 Massive gray pyroxene
 gneiss (+ some biotite)

4334 mafic pyroxene gneiss

mt letter

ridge on S side

(2) Similar to last locality
 Rather massive characterized gneiss
 with interlayered mafic pyroxene
 gneiss and some feldspar gneiss
 (rather rusty weathering)
 Deformed blocks by ... (streaked
 ... felds)

Engelmann at 4335
to 4336

basite and/or amphibole
replace pyroxene etc. Int to
wedge grains becomes black and
white (layered) — possibly some
deformation and alteration (colour
change in feldspar — to white)

The massive reddish green
becomes more purple in colour
(again colour change in feldspar?)
of the Biacoe area.

Thin mylonite zones etc are
present

4335 massive charoakite green
(rather altered)

4336 Altered green (amphibole/
biotite)

Dip - 180 - 210 and 10 - 20°

W side of Mt. Bartlett is similar
green

